

## SPREAD SPECTRUM COMMUNICATION RECEIVER

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### Abstract

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**PROBLEM TO BE SOLVED:** To compensate a phase error due to a frequency error between transmission and reception by the receiver of a direct spread and spread spectrum communication system which uses delay multiplexing according to the number of chips of delay waves of a multiplexed wave.

**SOLUTION:** For example, a signal spread with a code of 11 chips is multiplexed with 5-chip delay on a transmission side. Correlators 9 and 10 perform correlation and while one signal demodulated by a differential demodulation part 11 is sent to a switch A21 through a phase error extraction part 12, the other is sent to a demodulated data circuit part 14. A correlation peak detection part 20 detects the correlation peak between 5 chips and 6 chips to switch switches 21 and 24. When the 5 chips have the correlation peak, the signal is passed through the switch 21, phase error estimation part A22, and switch 24 and an accurate phase rotation quantity is sent to the demodulated data circuit part 14. When the 6 chips have the correlation peak, the signal is passed through the switch 21, phase error estimation part B23, and switch 24 and an accurate phase rotation quantity is sent to the demodulated data circuit part 14.

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